REMARKS

The Official Action dated May 19, 2003 has been carefully considered. Accordingly, the changes presented herewith, taken with the following remarks, are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

By the present Amendment, nonelected claims 8, 9, 14-20, 23 and 24 are canceled. Claim 5 is presented in independent form as new claim 28, claim 21 is amended to depend from claim 1, and claims 25-27 are amended to depend from claim 28. Support for new claims 29-31 may be found in previous claims 2, 21 and 22, respectively. It is believed that these changes do not involve any introduction of new matter, whereby entry is believed to be in order and is respectfully requested.

In the Official Action, claims 5 and 25-27 were objected to as depending upon rejected claims. As claim 28 corresponds with claim 5 written in independent form, it is believed that claim 28 and claims 25-27 and 29-31 dependent thereon are in prima facie condition for allowance. Reconsideration is respectfully requested.

Claim 21 was rejected under 35 U.S.C. §112, second paragraph, as indefinite owing to it dependency on cancelled claim 3. Claim 21 has been amended to depend from claim 1. As claim 21 was not other wise rejected, it is believed that the rejection under 35 U.S.C. §112, second paragraph, has been overcome and claim 21 contains allowable subject matter. Reconsideration is respectfully requested.

Claims 1, 2 and 4 were rejected under 35 U.S.C. §102(e) as being anticipated by the Rogers et al U.S. Patent No. 6,025,152 (Rogers et al '152). The Examiner referenced

Example 22 and asserted that Rogers et al '152 teaches a non-anaphylactic fragment of FelD1, a known allergen that has no IgE binding activity but has IgG binding activity in rats.

However, Applicants submit that the immunogens defined by claims 1, 2 and 4 are not anticipated by and are patentably distinguishable from the teachings of Rogers et al '152. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

More particularly, as defined by claim 1, the present invention is directed to an immunogen derived from a protein allergen. The immunogen comprises a) a non-anaphylactic immunogenic recombinant fragment of the protein allergen, comprising an IgG epitope and an IgE epitope of the protein allergen partly but not completely overlapping; b) a polymeric form of the fragment, in which form the fragment constitutes the monomeric units, and the monomeric units are separated from each other by an oligopeptide linker; or c) a non-anaphylactic recombinant polymeric form of the protein allergen having 2 to 10 monomeric units in which the protein allergen constitutes the monomeric units, and the monomeric units are separated from each other by an oligopeptide linker.

Rogers et al '152 disclose in Example 22 (column 53, lines 28-54):

> "Rats that were given daily subcutaneous injections for four weeks developed IgG antibodies specific to the peptides. No IgE specific antibodies developed in rats. The development of IgE antibodies may have been due to the inflammation from the repeated daily injections which resulted in a response to the peptides present at the inflamed site. In contrast, mice injected every 14 days with peptide X or peptide Y produced less irritation. No antibody production was noted in mice" (column 53, lines 45-54).

Applicants find no further description of any particular protocol employed in the rat test generally referenced in Example 22, and particularly, what protocol resulted in development of IgG antibodies. In fact, Rogers et al '152 speculate that the IgG antibody development may have been due to the inflammation from repeated injection.

Anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference, *In re Robertson*, 49 U.S.P.Q.2d 1949, 1950 (Fed Cir. 1999). The brief description of the rat test by Rogers et al '152 does not either expressly or inherently describe each and every element of the immunogen as set forth in present claim 1. Thus, Rogers et al '152 do not anticipate claims 1, 2 and 4, and the rejection under 35 U.S.C. §102 has been overcome. Reconsideration is respectfully requested.

Finally, claims 6 and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Rogers et al '152 in view of the Patterson et al U.S. Patent No. 4,269,764 and the Eisenbach-Schwartz et al U.S. Patent No. 6,126,939. The Examiner relied on Patterson et al as disclosing a polymerization of allergens to produce immunogenic allergens having reduced allergenicity and on Eisenbach-Schwartz et al as teaching immunogens comprising polymers of peptides linked by a hydrophilic oligopeptide linker to treat or ameliorate inflammation associated with allergic reactions.

However, Applicants submit that the immunogens defined by claims 6 and 22 are nonobvious over and patentably distinguishable from the teachings of Rogers et al '152 in combination with Patterson et al and Eisenbach-Schwartz et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

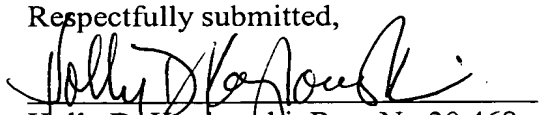
The deficiencies of Rogers et al '152 with respect to claim 1 are discussed above and apply equally well with respect to claims 6 and 22, which depend from claim 1. These deficiencies are not resolved by Patterson et al and/or Eisenbach-Schwartz et al. That is, Patterson et al teach ragweed antigens polymerized with glutaraldehyde, while Eisenbach-Schwartz et al are directed to peptides and derivatives exerting inhibitory effects on

macrophage migration and/or microphage phagocytic activity. Neither of these references are directed to immunogens as presently claimed, nor do Applicants find any teaching or suggestion in either reference for modifying the teachings of Rogers et al '152 to result in immunogens as presently claimed, in a polymeric form or otherwise.

In order to render a claimed invention obvious, the prior art must enable one skilled in the art to make and use the claimed invention, *Motorola, Inc. v. Interdigital Tech. Corp.*, 43 U.S.P.Q.2d 1481, 1489 (Fed. Cir. 1997). In view of the failure of Rogers et al '152, Patterson et al and Eisenbach-Schwartz et al, alone or in combination, to teach or suggest immunogens as defined by claim 1, particularly in polymeric form as required by claims 6 and 22, these references in combination do not enable the presently claimed subject matter and therefore do not support a rejection under 35 U.S.C. §103. Thus, the rejection under 35 U.S.C. §103 has been overcome, and reconsideration is respectfully requested.

It is believed that the above represents a complete response to the rejections under 35 U.S.C. §§ 102, 103, and 112, second paragraph, and places the present application in condition for allowance. Reconsideration and an early allowance are requested.

Respectfully submitted,



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